



FREQUENTLY ASKED QUESTIONS

update: Feb 2015

Why are mileage markers important?

People enjoy trails for a variety of reasons. Mileage markers help recreational users track progress as they walk or run. Bike commuters can use markers to pace their travel and get a sense of distance to their destination. For all trail users, mileage markers provide a tool to precisely determine one's location along a trail system. This is vital information when someone seeks the assistance of emergency personnel and facilitates the reporting and tracking of a maintenance concern.

Are markers necessary if Smart Phones can provide location data?

Smart phones do provide location data that can support 911 dispatching – but they do not resolve all issues with the geo-positioning of a person along a trail.

1. Some users turn off location services due to battery usage, privacy concerns or international calling plans (an issue for tourists).
2. Line of sight is critical for accurate location by GPS-enabled smart phones. Trees can prevent accurate signals to satellites and can create up to a ¼-mile error.
3. Cellular phones depend on triangulation between towers. A three-tower signal does provide accuracy – but it is common for a phone to catch only two towers.
4. Precise Smart Phone location data doesn't inform 911 Center operators how to reach someone along a trail (point of entry, presence of bollards, obstructions, etc.)
5. When near a State highway facility, a cellular phone call may be routed to Caltrans' Vallejo 911 Center where local knowledge of trails may be unavailable. The City of San Jose branded signs offer a tool for Caltrans staff to redirect the calls to San Jose's 911 Center.

What were the City's goals in developing an integrated marker and signage system?

Staff studied existing markers, signage and striping found in San Jose, as well as along trails in the United States and Europe. It found that many systems had a single purpose of guiding users about distance travelled. San Jose's mileage markers seek to accomplish the following:

- Create a physical address to support location of incidents and maintenance concerns.
- Support more efficient use of existing technical and staff resources.
- Create a highly durable marker system.

- Supply precise location data to the 911 Center.
- Incorporate trails as part of the roadway network as viewed by 911 Center staff.
- Create logical and memorable graphics to remind callers of the specific trail system.
- Use reflectivity to supporting viewing at all times of day and night.

How are markers integrated with the 911 Center?

Staff studied operations in San Jose's 911 Center and elsewhere and found that trails are not commonly depicted on roadway maps.

1. The precise location of mileage markers are now depicted on roadway maps found on dispatcher screens.
2. Trails are recognized a pedestrian/bike road on the roadway map screen.
3. Corresponding data for each marker is supplied - explain the presence of locked bollards, vertical obstructions, pavement conditions, and other issues that can slow or prevent access.

Why do markers include a graphic of an animal, plant or other object?

San Jose is developing an interconnected network of 35 trail systems. The name of some trails may not be known, or may be confused with others. Attributing a graphic to each trail system builds user awareness and offers one additional piece of data for 911 Center staff to verify location.

What are the project's anticipated benefits?

- Emergency response times should be quicker with precise location and obstruction data.
- Customer service is likely improved with no change in resources (no new 911 Center software or hiring of new emergency services personnel is required.)
- The mileage marker numbering convention supports regional deployment. Recently, the City of Santa Clara has expressed interest in deploying markers based on the San Jose system.

Why are markers posted so frequently?

Installing the markers at ¼ mile increments was viewed as an optimum distance to address the meandering trail alignments with limited lines of sight, and recommend by the Police Department.

Where can I find more information about the markers, signage and striping?

San Jose's Trail Signage and Mileage Marker Guidelines are posted on the trail program web site.